

TECHNICAL DATA

		Unit	ALUCORE®					ALUCORE® base	
			6	10	15	20	25	9.5	14
Standard thickness [mm]									
Cover sheet thickness, front side		[mm]			1.0			0.5	
Cover sheet thickness, rear side		[mm]	0.5	0.5	1.0	1.0	1.0	0.5	
Weight		[kg/m ²]	4.7	5.0	6.7	7.0	7.3	3.5 3.7	
Technical properties									
Section modulus	W	[cm ³ /m]	2.5	4.5	13.1	18.1	23.1	4.3 6.5	
Rigidity	E·J	[kNcm ² /m]	7 100	21 900	75 500	138 900	221 600	15 600 35 000	
Alloy of cover sheet (accord. to EN 485-2 / EN 1396:2007)			EN AW-5005A (AlMg1) H22/H42		EN AW-5005A (AlMg1) H28/H48 (H22 / H42)		EN AW 5005A (AlMg1) H22/H42		
Modulus of elasticity	E	[N/mm ²]	70 000					70 000	
Tensile strength of cover sheets	R _m	[N/mm ²]	≥ 125		≥ 185 (125)		≥ 125		
0.2% Proof stress	R _{p0.2}	[N/mm ²]	≥ 80		≥ 160 (80)		≥ 80		
Elongation	A ₅₀	[%]	≥ 5		≥ 2 (5)		≥ 5		
Linear thermal expansion	α		2.4 mm/m at 100° C temperature difference					2.4 mm/m at 100° C temperature difference	
Core									
Bare compressive strength		[N/mm ²]	approx. 2.5					approx. 1.5	
Cell size		[inch] [mm]	3/8 (9.5)					1/2 (12.7)	
Surface									
Lacquering			both sides polyester platinum white or fluoropolymer lacquer (e.g. PVDF), one or both sides					both sides mill finish	
Brilliance (standard)		[%]	25-40						
Hardness (pencil hardness)			HB-F						
Acoustical properties									
Sound absorption factor	α _s		0.05					0.05	
Air-borne sound insulation index (accord. to ISO 717-1, ISO 140-3)	R _w	[dB]	21	21	22	23	25	approx. 20	
Thermal properties									
Thermal conductivity (depends on total panel thickness incl. cover sheets)	λ	[W/mK]	0.95	1.35	1.78	2.25	2.70	1.01 1.30	
Thermal resistance	R	[m ² K/W]	0.0063	0.0074	0.0084	0.0089	0.0093	0.0094 0.0107	
Heat transition coefficient	U	[W/m ² K]	5.67	5.64	5.61	5.59	5.58		
Temperature resistance		[°C]	-40 to +80					-40 to +80	